

**Comp 108
Final
Examination**

NAME: _____ **KEY** _____

1. Given the following definitions and operations provide the resulting values for the indicated items

a. `int n = 7`
`final int m = 15;`
`n /= m;`
`m /= n;`

n

m

b. `int n = 15;`
`final float m = 4.401;`
`int p, q;`
`p = n/(int)m;`
`q = n%(int)m;`

p

q

c. `int n = 6;`
`int m = 9;`
`int p = n-- - ++m;`

m

n

p

2. Carefully review the following Java code. Identify and fix all compiler errors in the program.

When the program is corrected, it should perform the requested computations, truncate the digits after the decimal point and print the resulting values.

Make the corrections in the boxed program.

```
public class WhatAboutIt
{
    public static void main( String[] args ); ← remove ;
    {
        Double x = 2.53 ← insert ;

        int j = x + 10 ← change to int j = (int)x + 10;

        j += 3 ← insert ;

        System.out.println(" First: ' + j / 10.0) ← insert ;
        remove 'e' replace ' with "

        System.out.println(" Second + (int) j % 10) ← insert ;
        remove 'e' insert "

        System.out.print(" Third: ' + (int) j / 10.0) ← insert ;
        replace ' with "
        System.out.print(" The End");

    } ← missing
}
```

Show what is printed by your corrected program. [Next Page](#)

```
public class MTProb
{
    public static void main(String [ ] args)
    {
        double x = 2.53;
        int j;
        j = (int)x + 10;
        j += 3;
        System.out.println("First: " + j/10.0);
        System.out.println("Second " + (int)j%10);
        System.out.println("Third: " + (int)j/10);
        System.out.println("The End");
    }
}
```

```
/*
```

```
----jGRASP exec: java MTProb
```

```
First: 1.5
```

```
Second 5
```

```
Third: 1
```

```
The End
```

```
----jGRASP: operation complete.
```

```
*/
```

3. Consider the following Java code fragment.

```
int x ;
String s = "pink";
x = input.nextInt();
if( x < 10 )
{
    if ( x > 5)
        s = "red";
    else
    {
        if ( x < 5)
            s = "blue";
        else
            s = "green";
    }
}
System.out.println( s);
```

Under what conditions will the fragment print

a) red

$5 < x < 10$

b) pink

$x \geq 10$

c) blue

$x < 5$

d) green

$x = 5$